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Mullish

PATENT

Docket No. 150.00650102

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Brian A. Vaartstra et al. ) Group Art Unit: 2815  
Serial No.: 09/603,132 ✓ ) Examiner: E. Lee  
Confirmation No.: 3538 )  
Filed: 23 June 2000 )  
For: DEVICE STRUCTURES INCLUDING RUTHENIUM SILICIDE DIFFUSION  
BARRIER LAYERS

AMENDMENT AND RESPONSE

FAX COPY RECEIVED

SEP 18 2002

Assistant Commissioner for Patents  
Washington D.C. 20231

TECHNOLOGY CENTER 2800

Dear Sir:

In response to the Office Action dated 18 June 2002, please amend the above-identified application as follows:

In the Claims

Please amend claims 27, 32, and 36. The amended claims are provided below in clean form. Per 37 C.F.R. § 121, amended claims are also shown in Appendix A with notations to indicate changes made (for convenience, all pending claims are provided in Appendix A).

E 1  
27. (Thrice Amended) A semiconductor device structure, the structure comprising:  
a substrate assembly including a surface; and  
a chemical vapor codeposited diffusion barrier layer over at least a portion of the surface,  
wherein the diffusion barrier layer is formed of  $\text{RuSi}_x$ , where x is in the range of about 0.01 to  
about 10.

E 2  
32. (Thrice Amended) A capacitor structure comprising:  
a first electrode;  
a high dielectric material on at least a portion of the first electrode; and